

regarding the Sun's disc as a clock-face—and as I have explained at the outset, I cannot pretend to any great exactness in fixing them, as much of my attention was otherwise engaged. The prominences were very rich in colour and seemed, like the corona, to vary in intensity. They also seemed to vary in depth of hue, ranging from pink or rose to scarlet and almost to crimson. They had a markedly transparent appearance, like a light shining through coloured glass. I found I could see them quite plainly with my naked eye, after once having ascertained their position by means of the glass.

The "glow" seen before sunrise and after sunset now appeared in great beauty and richness of tint, surrounding the eclipsed Sun. The pink, rose, and mauve hues, the latter deepening to violet, and then fading to lavender, were very fine. The glow had extended round the dark body of the Moon as it advanced over the Sun, and similarly it preceded the Moon as it passed off the Sun's face. None could be seen on the uneclipsed side of the Sun. The exact time, carefully taken by chronograph, which elapsed between the final disappearance of the last sparkle of solar light on the right hand and the reappearance of the first sparkle on the left was 1 min. 32.9 secs.

The temperature, which was $49^{\circ}.1$ at sunrise, gradually fell during the eclipse, and finally receded to $43^{\circ}.6$, a fall of $5^{\circ}.5$. This was a smaller difference than I had expected. I imagine the smallness was due to the strong gale blowing, which must have tended to equalise temperatures. I fancy also that the disturbed state of the atmosphere may possibly be responsible for the seeming variation and unsteadiness of the coronal light and red flames.

Jupiter was very clearly visible during totality, also several stars, but the time was too short to allow of my recording particulars in addition to my other notes.

I forward these rough notes, *quantum valeant*, and can only express my regret that I had not, in anticipation of possible failure in the case of the official observations, made arrangements for observing the eclipse fully, and having telescopic, spectroscopic, and photographic records taken. However, if my very crude notes should prove of any service I shall be more than repaid my trouble in writing them.

The Terrace, Wellington:

1885, September 9.

Total Solar Eclipses A.D. 878 to 1724. By Joseph Maguire.

In the May number of the *Monthly Notices* parts of the central and limiting lines of these thirteen eclipses are shown on a map of the British Isles.

The map sent herewith, and to which this communication

refers, shows the completion of the central lines from beginning to end; and perhaps its publication in the *Monthly Notices* may not be considered undesirable.

The Greenwich Mean Times of beginning and ending, with the longitudes and latitudes in each case, are given as follows:—

Date.	h m	Beginning.		Ending.	
		Long. W.	Lat. N.	Long. E.	Lat. N.
878 Oct. 29	0 37.5	42 8	73 0	0 1	0 1
" " "	1 52			36 51	53 41
885 June 15	20 54.5	58 24	29 50		
" " "	23 34.6			117 37	40 24
1023 Jan. 23	22 57.6	55 52	38 26		
" " 24	0 34.7			16 24	71 6
1133 Aug. 1	22 36.5	90 42	53 11		
" " 2	1 29			71 44	10 2
1140 Mar. 20	0 27	96 19	20 38		
" " "	3 8.4			48 14	56 16
1185 Apr. 30	23 44.6	90 6	8 56		
" May 1	2 39.8			70 30	50 20
1330 July 16	2 2.5	144 4	49 53		
" " "	4 31.8			38 14	37 28
1424 June 26	1 10.2	125 4.6	36 53		
" " "	3 49.6			51 12	36 21
1433 June 17	1 26.7	135 26	43 57		
" " "	4 1.7			44 48	30 46
1598 Mar. 6	21 20.7	42 35	34 5		
" " "	22 57.1			3 54	84 10
1652 Apr. 7	21 16.2	51 33	22 27		
" " "	23 29.4			130 6	76 33
1715 May 2	20 24.5	46 53	32 4		
" " "	22 48.9			130 1	54 47
1724 May 22	3 42.7	152 6	14 21		
" " "	6 37.8			11 51	45 31

Norwich:
1885, September.

Daylight Occultation of Aldebaran on July 9, 1885, observed at Forest Lodge, Maresfield. By Captain W. Noble.

Although the Moon's age was about 26·43 days, her bright limb, at moments of good definition, was seen sharp and clear against the sunlit sky. *Aldebaran*, too, was brilliant enough at intervals, but the undulation was at times very great indeed. Most unfortunately, one of these fits of "boiling" came on just as the Moon's limb was in contact with the star, so that the best estimation I could make of its disappearance was that it occurred on July 8, $23^{\text{h}} 25^{\text{m}} 17^{\text{s}}.8 \pm$ Local Mean Time = $23^{\text{h}} 25^{\text{m}} 08^{\text{s}}.00$ G.M.T. I made no attempt to observe the reappearance. Power employed, 74 on my 4·2-inch Ross Equatorial. Latitude of my observatory, $51^{\circ} 0' 56''.3$ N.; longitude, 17·8 seconds E.

Forest Lodge, Maresfield, Uckfield:
1885, July 9.

Erratic Meteors. By B. J. Hopkins.

As is well known to observers of meteors, the apparent paths of those bodies, as seen by us projected upon the celestial vault, are generally in the form of a curve, but sometimes they appear to travel in straight lines, while a comparative few have no appreciable path, being seen only as points of light, which are no sooner observed than they are gone.

There is, however, a class of meteors that I have occasionally observed, though never found described in the text-books, which differs from those usually seen in that they travel in a zigzag or wavy path; from which circumstance and the rarity of their appearance I propose designating them "erratic" to distinguish them from ordinary meteors, which, it is perhaps needless for me to mention, they resemble in every other particular.

As I have said, these meteors are very rarely seen; I first observed one in the year 1879, and I have only noticed two since—one in 1881 and the other on September 9 of the present year. Details of these meteors I give in the following extracts from my note-books, which, together with the charts showing their course among the stars and the form of their paths, will make clear what I mean by erratic meteors.

Extracts from Note-books.

- 1879, Oct. 20.— $10^{\text{h}} 49^{\text{m}}$ G.M.T. Observed a bright yellow meteor, which described a zigzag path with two bends, as shown in diagram. Appeared between α and β *Cameli*, disappeared near θ *Persei*.
- 1881, June 25.— $12^{\text{h}} 4^{\text{m}}$ G.M.T. Observed a bright white meteor = 4. Appeared just south of κ *Draconis*, disappeared near γ *Ursæ Majoris*, after pursuing a wavy path.